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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,838	11/15/2001	Joseph V. Bonadies	DP-304676	7174

7590 11/13/2003

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EXAMINER

DAVIS, OCTAVIA L

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/998,838	<b>Applicant(s)</b> BONADIES ET AL.
	<b>Examiner</b> Octavia Davis	<b>Art Unit</b> 2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-18 and 32-37 is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-31 and 38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>102903</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Inventorship***

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Claim Objections***

2. Claims 3 – 5 are objected to because of the following informalities: On line 2 of each claim, “ said engine ” lacks antecedent basis. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in the Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 12, 19 – 31 and 38 – 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Otsuka et al.

Regarding claims 1, 19, 20 and 38 - 42, Otsuka et al disclose an air/fuel control system comprising 1 an engine, an oxygen sensor 28 disposed within the exhaust gas passage of said engine and an engine control module 20 operatively connected to said engine including a processor for obtaining a first input signal indicating a first oxygen sensor voltage, obtaining a second input signal indicating a second oxygen sensor voltage at a period subsequent to said first input signal, determining a first voltage trend based on said first input signal and said second input signal, and determining whether said first voltage trend is decreasing at a rate greater than a first voltage threshold rate (See Col. 5, lines 7 - 28 and 46 - 53, Col. 7, lines 1 - 13 and Col. 8, lines 50 - 68).

Regarding claims 2, 3, 21 and 22, an open loop fueling is adjusted if said first voltage trend is decreasing at a rate greater than said first voltage threshold rate (See Col. 8, lines 50 - 68).

Regarding claims 4, 5, 23 and 24, the adjustment includes adding fuel to combustion chambers of said engine by increasing a base pulse width command to fuel injectors of said engine (See Col. 6, lines 6 - 9).

Regarding claims 6 - 9 and 25 - 28, an engine run condition is sensed prior to obtaining said first input signal (See Cols. 4 and 5, lines 56 - 68 and 1 - 10).

Regarding claims 10 and 29, determining whether closed loop fueling is disabled prior to obtaining said second input signal (See Cols. 5 and 6, lines 53 - 57 and lines 54 - 64).

Regarding claims 11 and 30, determining whether engine coolant temperature is within a temperature operating window prior to obtaining said second input signal (See Col. 5, lines 7 - 10).

***Claim Objections***

5. Claims 13 – 18 and 32 – 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Frelund et al (6,598,589) teaches an engine control algorithm-cold start  $\Lambda/F$  modifier.

Maloney et al (6,588,409) teaches an engine cold start fuel control method.

Lambert et al (6,588,253) teaches a fuel volatility sensor.


Jahaverian (6,360,726) teaches a fuel volatility detection and compensation during cold engine start.

7. Any inquiry concerning this communication should be directed to Examiner Octavia Davis at telephone number (703) 306 - 5896. The examiner can normally be reached on Monday - Thursdays (9:00 - 5:00), Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on (703) 305 - 4816. The fax phone number for the organization where this application or proceeding is assigned is (703) 746 - 4409.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 – 0956.

OD/2855  
10/29/03

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGICAL CENTER